

SIT incorporates three different methods for “learning” the characteristics of 4-wire port modular interfaces found in most telephone station sets. These methods determine the appropriate 4-wire terminal configurations, the transmit and receive channels of the intended telephone base unit, and adjust the channel sensitivities until an optimal and clear signal is provided for the user.

Claim 41

1. Regarding Claim 41, it is stated within the Office Action that the claim limitation recites “...a switch matrix, settable to any of a plurality of switch configurations...” and that “U.S. Patent No. 5,729, 603 discloses that the plurality of switch configurations is specifically 6 configurations as disclosed at column 4, line 32 through column 5, line 24 and exhibited in table. Conversely applicant’s specification does not disclose the number of possible configurations, thus the support for the claimed limitation is different.” The Applicant respectfully disagrees.

It is not proper to treat characteristics of a preferred embodiment as claim limitations. For example, the written description often discloses only one exemplary form or embodiment of the invention. But the claim term should not be limited to that single embodiment as the inventor need not disclose every embodiment. See Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1204 (Fed. Cir. 2002). Rather, pending claims must be interpreted as broadly as their terms reasonably allow in light of the written description in the Applicants’ specification as would be interpreted by one of ordinary skill in the art. See In re Morris, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997). In doing so, the PTO will give the terms used in the claims their ordinary meaning unless another meaning is intended by the Applicant as established in the written description of the specification. Id.

More importantly, every patent claim is construed in the context of the specification in which it appears as part of the patent document. 37 CFR §1.75(d)(1). *When a claim is copied from another patent for interference purposes, it must be supported by the specification of the copier.* See Cultor Corp. v. A.E. Staley Mfg. Co., 224 F.3d 1328, 1332 (Fed. Cir. 2000). Therefore, the specification that is relevant to claim construction is the specification of the patent in which the claims reside, i.e. the Applicants’ specification, and not the specification of the interfering patent (the ‘603 patent). See Young Dental Mfg. Co. v. Q3 Special Prods., Inc., 112 F.3d 1137, 1143 (Fed. Cir. 1997).

In the present application, a switch array is shown in Figs. 4 and 8-9 of the disclosure, having four input ports which are coupled to a four line telephone base jack. (Present Specification, page 13, lines 13-15). In addition, the present specification states that:

The digital MCU 100 is able to address and manipulate the 32 bit addressable latch 1, thereby controlling the 4x4 crosspoint switch array 2 and 100 ohm resistor shunt array 3, within the analog integrated circuit 200. The crosspoint switch array 2 has four inputs which are directly coupled to a four line telephone base unit jack 202 through the array 3, as illustrated by the lines 1-4.

(Present specification, page 13, lines 11-15). Regarding the language of Claim 41 which recites a “plurality of switch configurations,” the present specification states that:

The SIT system “CO Dialtone” and “Automated 800 Learning” methods will select the most common configurations which satisfy the system’s performance criteria. Occasionally this may not be the optimal “line configuration” selection for all interface environments. Since there are no regulatory requirements governing the specific characteristics for 4-wire handset port interfaces, there is a range of different configurations. It is not uncommon for an electronic telephone set to contain a handset port interface that will operate with multiple “line-configuration” settings. All of the configurations will provide acceptable system performance, occasionally however, a particular configuration will be more susceptible to unwanted radio-frequency interference or electro-magnetic interference. In these cases, alternate combinations must be selected for optimal system performance.

(Present specification, page 5, line 25 to page 6, line 7). The present specification also states that:

The digital MCU 100 uses this information (a sample of the input signal received) to determine if the appropriate line configuration has been selected and to control the receive and transmit channel sensitivities.

(Present specification, page 7, lines 21-23). The term “plurality”, when used in a claim, means “more than one” or “at least two.” See York Prods., Inc. v. Cent. Tractor Farm & Family Ctr., 99 F.3d 1568, 1575 (Fed. Cir. 1996) (“The term means, simply, ‘the state of being plural.’”). In sum, “a plurality of switch configurations” means “at least two switch configurations.” For at least these reasons, one of ordinary skill in the art would recognize that “common configurations” and “range of different configurations” and “multiple line configuration settings” as recited in the written disclosure of the present specification supports the term “a plurality” in the claim limitation “a plurality of switch configurations” in Claim 41.

2. Also regarding Claim 41, it is stated within the Office Action that the claim further cites limitation "...a control logic, coupled to the switch matrix, that automatically determines which of the plurality of signal lines from the handset port comprise the handset port receive path, determines a preferred switch configuration from among a plurality of switch configurations based upon which of the plurality of signal lines from the handset port comprise the handset port receive path, and sets the switch matrix to the preferred switch configuration, the preferred switch configuration coupling the handset port receive path to the headset receive path." It is also stated that "U.S. Patent No. 5,729,603 discloses that control logic test each of the six configurations is tested with a test signal, typically a dial tone and the result is measured via the signal level detector to determine the preferred configuration. Each of the six combinations are tested sequentially and the result is compared to the previous result and the best result is used as the combination. Conversely the applicant's specification does not disclose the above process to determine the appropriate configuration. Therefore claim 41 fails to meet the requirement of MPEP 2307.02." The Applicant respectfully disagrees.

As mentioned above, it is not proper to treat characteristics of a preferred embodiment as claim limitations. Rather, pending claims must be interpreted as broadly as their terms reasonably allow in light of the written description in the Applicants' specification as would be interpreted by one of ordinary skill in the art. See Morris, supra. Also, as mentioned above, the specification that is relevant to claim construction is the specification of the patent in which the claims reside, i.e. the Applicants' specification, and not the specification of the interfering patent (the '603 patent). See Young Dental, supra.

In the present application, under control of the digital MCU 100 (Fig. 7), the addressable latch (Fig. 8) manipulates the switch array 2 by sequentially coupling pairs of line input ports until a CO dialtone is sensed by the digital MCU 100 in the receive channel. (Present specification, page 13, lines 19-27). The present specification also states that:

The SIT "Automated 800 Learning Sequence" begins by searching for the preamble sent by the Host. Once the preamble is selected, the proper receive lines are located. The receive channel sensitivity is then adjusted in comparison to a receive level reference. Upon locating the proper receive lines, the transmit lines are selected and their sensitivity is adjusted in comparison to a transmit level reference signal.

(Present specification, page 5, lines 15-19). The present specification further states that:

The analog integrated circuit 200 is coupled to the telephone handset port 202 through a 4-wire line interface. This interface allows for the establishment and

selection of the 2-wire each send (Tx) and receive (Rx) line pairs. As is well known, the send and receive pairs are frequently not the same two lines in the port and may often share a common return line.

(Present specification, page 7, lines 9-13). The present specification further states that:

A receive signal Rx REF OUT of the analog integrated circuit 200 is coupled to the analog/digital (A/D) input of the digital MCU 100 and provides a sample of the input signal which the analog integrated circuit 200 receives from the telephone base unit. The digital MCU 100 uses this information to determine if the appropriate line configuration has been selected and to control the receive and transmit channel sensitivities.

A signal TONE OUT from the digital MCU 100 is coupled to an input TXREF of the analog integrated circuit 200 and allows the digital MCU 100 to provide a 1 KHz calibration transmit tone, through the analog integrated circuit 200, to facilitate the appropriate selections of the transmit lines and transmit channel sensitivity setting.

(Present specification, page 7, lines 18-27). The above description confirms that a digital MCU (control logic), coupled to a switch array, automatically determines which of the plurality of receive or transmit lines from the handset port interface comprise the receive path, determines an appropriate (preferred) switch configuration from among a plurality of switch configurations based upon which of the plurality of lines from the handset port interface comprise the receive path, and sets the switch array to the appropriate switch configuration, the appropriate switch configuration coupling the handset port receive path to a headset receive path or other accessory configured to work with the base unit. For at least these reasons, one of ordinary skill in the art would recognize that the Applicant had possession of the claim limitation, "...a control logic, coupled to the switch matrix, that automatically determines which of the plurality of signal lines from the handset port comprise the handset port receive path, determines a preferred switch configuration from among a plurality of switch configurations based upon which of the plurality of signal lines from the handset port comprise the handset port receive path, and sets the switch matrix to the preferred switch configuration, the preferred switch configuration coupling the handset port receive path to the headset receive path" in Claim 41. Therefore, Claim 41 is fully supported and described in the specification and overcomes the rejection.

3. In the Official Action it is stated that "Regarding claim 56, 57 and 63, disclose the same limitations as in claim 41, thus the applicant specification fail to provide the support to copy the claim limitation as stated above. Therefore claim 41 fails to meet the requirement of MPEP 2307.02." However, for the reasons stated above, Claim 41 is fully supported and described in

the specification and overcomes the rejection. Therefore, the limitations in Claim 56, 57 and 63, which disclose the same limitations as in Claim 41, are also fully supported and described in the specification and overcomes the rejection.

For the reasons given above, the Applicants respectfully submit that the Claims 41-58 and 63 are in a condition for allowance. Should the Examiner have any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,  
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CERTIFICATE OF MAILING (37 CFR § 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

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